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Chapter 1 Description of the Project

1.1 INTRODUCTION

The U.S. Army Corps of Engineers, Portland District (Corps) routinely dredges several projects on the Oregon Coast (Coastal Projects) to maintain their federally authorized navigation channels. This Environmental Assessment evaluates the potential impacts of the Corps' maintenance activities at Port Orford. This document is an update of the 1997 Maintenance Dredging Environmental Assessment and the 1975 Final Environmental Impact Statement for the Chetco, Coquille and Rogue River Estuaries that also included Port Orford. The purpose of this EA is to update the project actions and evaluate the environmental impacts that may result from the expansion of the near-shore placement area.

1.2 AUTHORIZING DOCUMENTS

The Port Orford project was authorized by the Rivers and Harbors Act of 1965 and 1970. The project was further modified by the Water Resources Development Act of 1992. The near-shore and breakwater disposal sites are authorized by Section 404 of the Clean Water Act of 1977 and in accordance with Regulation 33 CFR parts 335-338.

1.3 LOCATION

Port Orford is located in Curry County, Oregon, approximately 250 miles south of the Columbia River. The harbor is a natural cove protected from the north and west by a headland that extends seaward on a southerly direction for a distance of approximately one mile.

1.4 PROJECT HISTORY

The breakwater was constructed in 1935 at the southern end of the cove and later extended to its current length of 550 feet in 1968. The turning basin was constructed to the east of an existing dock in 1971 to provide adequate depths for navigation in the harbor behind the extended breakwater. This project has been designated as a critical harbor of refuge. The local sponsor is the Port of Port Orford (Environmental Impact Statement, 1975).

The federally authorized project includes a breakwater that is 550-feet long and a turning basin that is 16-feet deep, 900-feet wide, and 750-feet long. Because of sediment shoaling that resulted from the construction of the breakwater, dredging of the turning basin began in 1971. Since then, the configuration of the turning basin has been modified to include a navigation channel between the dock and turning basin. The turning basin is no longer dredged. Initially, only a summer dredging of the navigation channel was performed at Port Orford. The winter dredging of an area adjacent to the boat hoist began in 1988 as a result of summer dredging becoming insufficient to sustain the Port through the winter

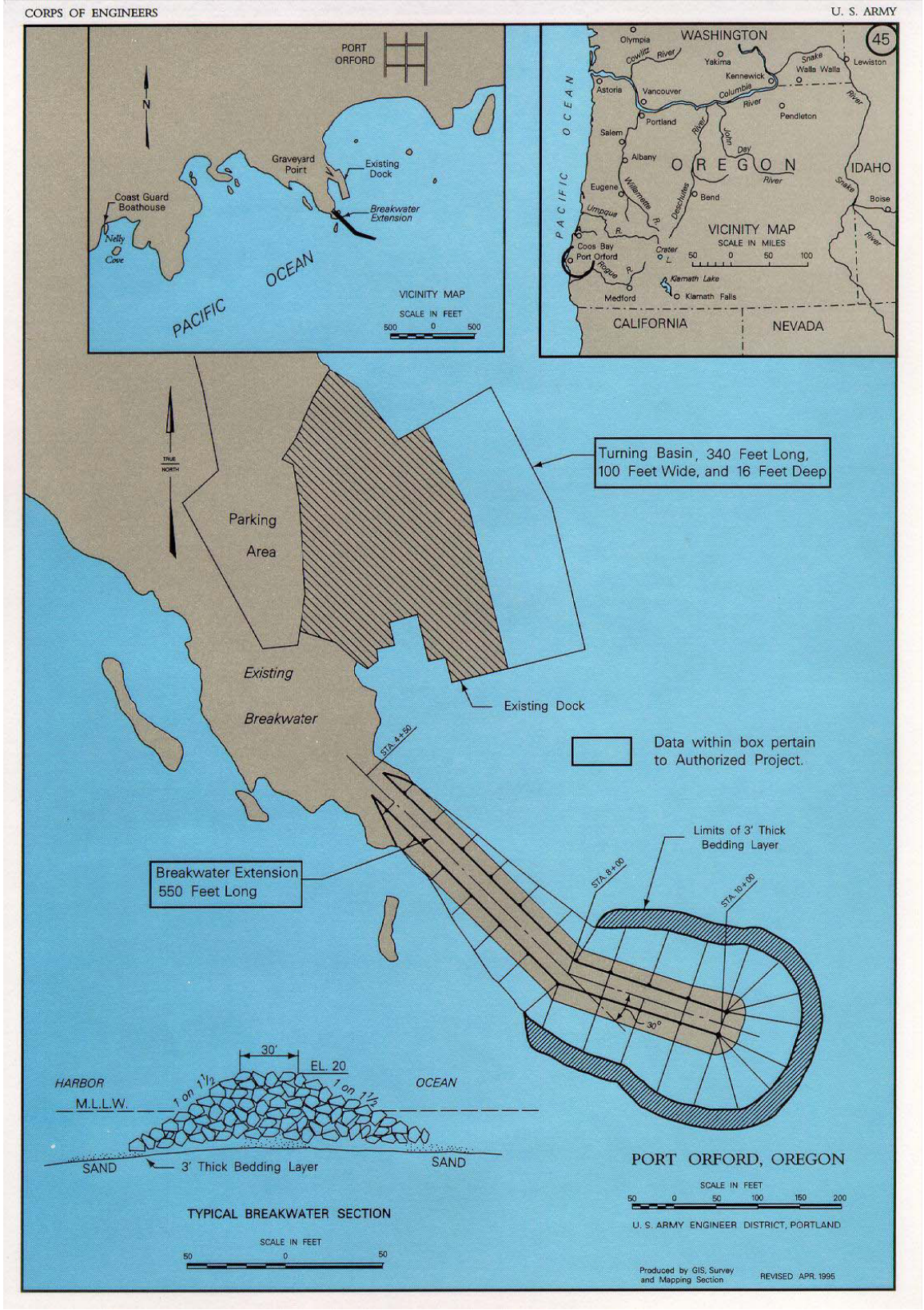
(Craig, 2006). Currently, the navigation channel is dredged each summer and the area around the boat hoist is dredged in the winter.

1.5 PURPOSE AND NEED

The purpose of the proposed action is to maintain sufficient water depth below the boat hoist at the Port Orford dock to allow removal of boats and their catch from the water to the safety of the dock (Environmental Assessment, 1991). Shoaling occurs annually in the turning basin and along the end and face of the Port Orford dock due to a northerly littoral drift.

The proposed action will result in improved navigation access, maintenance of existing socioeconomic systems in project areas and increased economic return to recreational and commercial interests (Environmental Impact Statement, 1975).

Port Orford Vicinity Map



Chapter 2 Proposed Action

2.1 PROPOSED ACTION

A 750 feet long, 90 feet wide and 16 feet deep navigation channel is dredged between the turning basin and the dock over a 50-day period each summer. The channel is dredged to the authorized depth of 16 feet plus 4 feet of advanced maintenance for a total dredging depth of 20 feet. An additional 3 feet of sediment may be disturbed during dredging activities for a total depth of 23 feet. This practice provides access to boat hoists located at the existing dock and ensures that the authorized depth is maintained between dredging operations.

The typical work area is shown on the attached drawing (see appendix). For the summer dredging action, a clamshell dredge or pipeline dredge, operating between 1 May and 31 October, will accomplish the work. Sediment from summer dredging will be placed in a near-shore placement area that is located approximately 200 feet off the edge of the breakwater (see project map in appendix). The current near-shore placement area is 400 feet by 400 feet and has a maximum capacity of 30,000 cubic yards of sediment. In 2003, approximately 25,000 cubic yards of sediment was removed during the summer dredging (Final Public Notice, 2004). Recent surveys indicate that approximately 45, 000 cubic yards of sediment will need to be dredged in 2006. Modeling indicates that the near-shore placement area needs to be expanded to 800 feet by 800 feet to provide adequate dredged material placement capacity (Craig, 2006).

In the winter, a 305 feet long by 30 feet wide area adjacent to the boat hoist is dredged. The authorized depth is 16 plus 4 feet of advanced maintenance for a total depth of 20 feet, but the actual dredging depth is typically less than -17 feet. This is the minimum depth and area required to allow removal of boats and their catch (products) from the water to the safety of the dock. The winter contract is designed around weather constraints to allow the minimum depth needed to use the dock facility. An estimated 500 to 7,000 cubic yards per year will be removed by pipeline dredging (submersible pump is lowered from the dock). Dredging will normally occur in 2-5 increments between 1 November and 15 April, and may extend into the summer depending on funding levels. The frequency of dredging will depend on how long adequate depths remain below the hoists. The typical work area is shown on the project map in the appendix. Sediment from winter dredging will be discharged off the breakwater ("Breakwater Placement Area"), as close to the outer end as possible, to avoid the natural rocky intertidal habitat at the shoreward end of the breakwater. Discharge will occur no less then 300 feet south of station "LEAD", shown on project map in the appendix. The discharge pipe will be located approximately 10 feet above the water surface and will be moved as necessary to prevent mounding and to keep the discharge directed seaward.

Sediment analysis of the material in the area to be dredged indicates that it is sand with an average in-place density of 1,910 grams/liter (Final Public Notice, 2004).

The following describes each type of dredging method:

Pipeline dredging
A pipeline dredge uses a 'cutterhead' on the end of an arm. It is buried in the bottom and as the cutterhead rotates it swings in an arc in front of the dredge. Dredged material is sucked up through the cutterhead and into the pipes by an onboard pump. It is then pumped to an in-water disposal site. Maintenance dredging done by pipeline at Port Orford is currently performed using small contract dredges (Draft Biological Assessment, 2005).

Mechanical Dredging
Mechanical dredges remove material by scooping it up with a bucket. They include clamshell, dragline, and backhoe dredges and are well suited for removing cemented sands, gravels, or well-fractured rock outcrops. Mechanical dredges are also used for maintenance dredging in areas where other forms of dredging may not be effective. For example, mechanical dredges are often used under bridges and in other tight areas, like berthing areas. The dock face of Port Orford is an example of a tight area; dredging occurs near the dock face that requires the use of a mechanical dredge (Draft Biological Assessment, 2005).

In this proposed action, mechanical dredging will be performed from a crane that is mounted on a barge adjacent to the dock. Sediment from the bucket is usually placed on a barge for offloading and disposal in the near-shore placement area. Because mechanical dredges are not self-propelled, they are not typically used in high traffic areas; rather, they are used in tighter spaces such as around docks and piers (Draft Biological Assessment, 2005).

Return water from mechanical dredging comes from the bucket as it is raised above the water surface and from the barge as the material is loaded. Return water from the barge can come from overflow over the sides or through a skimmer if the barge is equipped with one (Draft Biological Assessment, 2005).

2.2 ALTERNATIVES

The two alternatives for this project include an action and a "no-action" choice. The action alternative consists of dredging the navigation channel and the 305- by 30-foot segment of the channel along the dock. The dredged material will then be disposed at a placement site. Within the action alternative, two placement sites for the pipeline dredging are proposed: a near-shore placement area approximately 800 feet by 800 feet located approximately 200 feet south of the end of the breakwater, for summer dredging; and a breakwater placement area for winter dredging (Final Public Notice, 2004). The no-action alternative consists of the Corps not conducting in dredging at Port Orford.

Chapter 3 Affected Environment

3.1 INTRODUCTION

This section will describe baseline information in the project area on topics that have the potential to be affected by any of the proposed alternatives. This section will include compliance and any potential implications associated with applicable laws and regulations.

3.2 PHYSICAL ENVIRONMENT

3.2.1 Geology

The geology of the project area consists of complex, older metamorphic rocks, which have been changed by intense pressure and heat. The Pacific Ocean has been an important force in shaping the existing coastline (Environmental Impact Statement, 1975).

The level of the Pacific Ocean has varied considerably during the past glacial and interglacial periods. Field studies indicate that the sea level has fluctuated about 400 feet below and 200 feet above its current level, causing erosion and flooding of most stream valleys and coastal areas (Environmental Impact Statement, 1975).

The Klamath Mountains, dominate the area just east of the South Oregon Coast. They consist primarily of steeply folded and faulted sedimentary strata which have been intruded with serpentine basic rocks. Other formations consist of pressure-hardened sandstones and shale (Environmental Impact Statement, 1975).

3.2.2 Topography

Coastal topographical features on the south west Oregon coast include a variety of rock, sea-carved headlands, sloping marine terraces, alluvial floodplains, sand dunes, and tidal estuaries (Environmental Impact Statement, 1975).

The town of Port Orford lies on a bluff just north of the bay. Garrison Lake lies on the bluff in the northwestern part of town. East and southeast of town, the terrain climbs and changes into a high, bold, rocky coastline. This rugged, irregular coast with occasionally narrow beaches continues southeast many miles. To the north, the coastline consists of upwarped terraces (Environmental Impact Statement, 1975).

3.2.3 Minerals

The black beach sands near Port Orford have been mined for gold platinum, chromium and manganese. Prospecting for nickel has also occurred along the coast (Environmental Impact Statement, 1975).

3.2.4 Ocean Sediments

The latest sampling and testing of sediments at Port Orford occurred on August 21, 2002. Three surface grab sediment samples were collected. All samples were submitted for physical (Tier IIa) analyses including total volatile solids. All three samples were analyzed for metals, total organic carbon, pesticides, and polychlorinated biphenyls (PCBs), phenols, phthalates, extractables, and polynuclear aromatic hydrocarbons (PAHs). None of the contaminants tested were found to be at or above screening levels. All sediment was determined to be suitable for unconfined, in-water placement without further characterization. Sampling and analysis activities followed the procedures described in the *Port Orford Sediment Quality Evaluation*. Data and results can be found in the appendix of this document.

Collection and evaluation of the sediment data was completed using guidelines from the Dredge Material Evaluation Framework for the Lower Columbia River Management Area (DMEF). The DMEF tiered testing approach requires that material in excess of 20% fines and greater than 5% volatile solids, as well as any material with prior history or is suspected of being contaminated be subjected to chemical as well as physical analyses (Port Orford Sediment Quality Evaluation, 2002).

3.2.5 Oceanography

Significant beach erosion occurred along the coast of Oregon during the 1997-98 El Niño and 1998-99 La Niña winters due to the occurrence of several large storm wave events, coincident with high ocean water levels. The erosion was particularly severe at Port Orford, located on the southern Oregon Coast. This lead to beach and dune erosion which caused saltwater intrusion and flooding of nearby freshwater lakes (Coast Harbor Engineering, 2006).

3.2.6 Water Quality

There is a potential for short term impacts to water quality associated with dredging and disposal operations. Minor turbidity resulting from an increase in suspended solids may occur for a short period of time during dredging and disposal.

All dredging and disposal of sediments is conducted so as to minimize siltation and turbidity in the project area. Turbidity is monitored per the requirements of the Oregon Department of Environmental Quality water quality certificate.

3.2.7 Air Quality

Section 118 1963 Clean Air Act, as amended (42 *United States Code* (USC) 7401 et seq.), requires land managers to protect air quality. This regulation requires the Corps to meet all federal, state, and local pollution standards and analyze potential impacts to air quality (Environmental Protection Agency, 2003).

Dredging activities that involve sediment handling and processing could result in the release of pollutants into the air. The standard for air quality addresses the potential exposure of both adults and children in the project area to emissions from the Project (Environmental Protection Agency, 2003). The goal of the air quality standard is to minimize effects on people's health and the environment from air emissions during the dredging. Emissions from the sediment can be controlled using several methods, including covering it and keeping it moist. Exhaust from the dredging equipment is not expected to affect air quality.

The sediment at Port Orford site does not contain pollutants or contaminants. Therefore there will be little to no risk of exposure to toxic emissions.

3.2.8 Prime and Unique Farmland

There are no prime and unique agricultural lands in the project action area. There are no affects of the project on farmland in accordance with the Farmland Protection Policy Act of 1981 (FPPA). Any coordination with the NRCS (including completion of the Farmland Conversion impact form AD-1006) shall be undertaken as appropriate.

3.3 BIOLOGICAL ENVIRONMENT

3.3.1 Vegetation

The vegetation in the Port Orford area consists of two community types. A community comprised of grasses, annuals, and shrubs is located on a steep slope overlooking the harbor and is separated from the beach by a road. A few of the dominant species include alder (*Alnus rubra),* willow (*Salix sp.),* equisetum (*Equisetum sp.),* and strawberry grasses (*Fragaria chiloensis).* At the top of the slope this community is replaced by a zone of coast pine found in association with the firs that tend to establish on high cliffs with seaward exposure. Some of the dominant species within the shrub and forest stand are coast pine (*Pinus contorta),* fir (*Abies grandiose*), bearberry (*Arctostaphylos uva-ursi),* iris (*Iris sp.)* and strawberry (*Fragaria chiloenis)* (Environmental Impact Statement, 1975).

Aquatic flora observed near the Port Orford area consists primarily of bull kelp beds that are located to the west-southwest of the breakwater at an average depth of 15 feet. The beds provide important invertebrate and fish habitat and increase the overall productivity of the system. Other species of algae inhabit the plankton and benthic habitats adjacent to the port. Immediately adjacent to the breakwater, the aquatic habitat typically consists of undisturbed rocky shore/kelp habitat (Environmental Assessment, 1991). Shoreline features include steep cliffs, two high-elevation rocks, several low-elevation rocks, small rocky intertidal areas, subtidal reefs, sand beach, the Port of Port Orford dock, and a protective ocean jetty (Fox et al, 1994).

The 800 feet by 800 feet area 200 feet south of the end of the breakwater, proposed as a disposal site, is a relatively flat sand bottom in a high energy zone, with no aquatic vegetation. Use of this site would avoid the highly productive rocky habitat and bull kelp beds to the north of the breakwater.

Pink Sand Verbena

The beach at Port Orford supports a population of pink sand verbena. This plant is listed as endangered by Oregon Department of Agriculture and federally listed as a species of concern (Environmental Assessment, 1991).

Pink or beach sand verbena is a prostrate, somewhat succulent perennial with few to many slender, glabrous to glandular-hairy stems and opposite, ovate to diamond-shaped leaves on stems ± as long as the leaf blades. The flowers are in clusters subtended by 5-8 rose-colored lanceolate bracts. There are no petals, and the five calyx lobes are in turn cleft into two lobes, making it appear that the plant has ten petals. The limb of the perianth is rose to bright magenta with a central whitish spot and the tube is green or red and glandular-pubescent. The one pistil and three stamens are included within the tube. *A. umbellulata* hybridizes with several other species of *Abronia*, including *maritima* (Pink Sand Verbena, 2006).

Historically, pink sand verbena was found along Pacific Coast beaches from northern California to British Columbia. Currently, there are a few populations in Oregon and northern California (Pink Sand Verbena, 2006).

Pink sand verbena inhabits open sandy beaches, each plant forms a mat two or three feet across. It grows typically at or below the zone of driftwood accumulation. European beach grass and other competing vegetation appear to be crowding out the verbena at this site. The population of pink sand verbena growing on previously placed dredged material is the largest in Oregon.

In the early 1990s habitat for pink sand verbena was enhanced by the Corps in cooperation with the Oregon Department of Agriculture with the placement of dredged material at an upland location immediately east of the re-handle area at Port Orford (Biological Assessment, 2004). Dredged sediments were placed on the beach above the vegetation line. The placement of the dredged material had a favorable effect on a population of pink sand verbena; however increased dredging requirements in the mid 1990s filled the site to the capacity permitted by previous coordination. This practice was discontinued in 1997 (Environmental Assessment, 1997).

3.3.2 Terrestrial Wildlife

Marbled Murrelet

The marbled murrelet (*Brachyramphus marmoratus)* (threatened) is a permanent resident of the central and southern Oregon Coast. Adults may be found feeding in the waters off of Port Orford. The largest concentration of marbled murrelets in Oregon is found along

Tenmile Creek, on the central Oregon Coast. The highest densities of murrelets were recorded off beach and mixed beach-rocky shoreline, but to a lesser extent off river mouths. Murrelet abundance was most prevalent within 500 meters of shore and abundance decreased by 50 percent beyond 500m and was reduced to 10 percent of near-shore levels 1,200 m offshore. Fledglings were never abundant in the 94-km reach of near-shore waters between Newport and Florence (Strong et al. 1993). Foraging typically occurs within 500 m of shore.

Strong et al (1993) reported that marbled murrelets were sensitive to the presence of vessels and almost all responses including fight or diving occurred at less than 50 m from the vessel. Murrelets would be expected to return to their normal offshore activities quickly after passage of the vessel.

Sand lance and other forage fish are the primary food resource for marbled murrelets. Sand lance commonly burrow in unconsolidated sandy substrates and occur in waters less than 100 m deep (Trumble 1973 in Emmett et al. 1991). Sand lance are commonly killed as a result of entrainment during dredging and from disposal activities. Offshore habitat and prey resources, however, are not considered limiting factors for marbled murrelet populations. Marbled murrelets nest in old growth coniferous forests and the low incidence of occurrence at coastal locations is thought to be related to the loss of old growth coniferous forests (Federal Register 1991).

Brown pelican

The brown pelican (*Pelicanus occidentalis)* (endangered) occurs at the mouths of river entrances and associated near-shore waters. Their presence at the project locations along the Oregon Coast occurs after nesting on islands off the coast of southern California and western Mexico and may occur from April through September with occasional birds staying well into the fall or early winter. Peak numbers occur from late August through October (Gilligan et al. 1994). Observations on brown pelicans indicate the species has habituated to recreational and commercial boating use along the Oregon Coast. Brown pelicans utilize rocks along the shoreline at Port Orford (Fox et al, 1994). The proposed action will not preclude foraging activities or flight patterns by this species in the project areas as they are habituated to human activity at this location.

Bald Eagle

The bald eagle (*Haliaeetus leucocephalus)* (threatened) usually form long-term pairs and nests. Nest sites are most often found around the edge of lakes or reservoirs larger than 80 acres or along forested corridors of large rivers. Nest trees are typically large in diameter and are located within the tallest stand of trees covering an area larger than 3 acres. The nests are close to convenient foraging sites as possible, as long as human activity is minimal.

Long-term pairs may build and repair nests during any season. Egg-laying by breeding eagles may occur as early as February, but typically begins in mid-April, with eggs hatching from mid-March through mid-May (Montana Bald Eagle Working Group, 1994). The sensitive nesting period for bald eagles generally extends from February 1 to

August 15. The largest number of breeding pairs of bald eagles in Oregon is found in the Klamath Basin. Many pairs are also found at Cascade lakes, along the Oregon coast, and along the Lower Columbia River Basin (eagles.org, 2006). Four nesting pairs of bald eagles were identified in Curry County in 2005. None of the nests are located in the vicinity of Port Orford (Isaacs and Anthony, 2005). Bald eagle wintering activities typically occur between October 31 and March 31. Wintering habitat includes perching and roosting sites located near open water or in areas with ample carrion. The most wintering pairs of bald eagles in Oregon are found in the Klamath and Harvey Basins and along the Snake and Columbia Rivers (eagles.org, 2006).

Western Snowy Plovers

The U.S. Fish and Wildlife Service announced April 6, 2006 a finding that the Pacific Coast population of the western snowy plover (*Charadrius alexandrinus nivosus)* remains at risk from habitat loss, human disturbances and other perils and should retain its status as threatened under the Endangered Species Act (ESA). The western population of the tiny shorebird that breeds in coastal areas in California, Oregon and Washington has been listed as threatened since 1993 (U.S. Fish and Wildlife Service, 2006).

The western snowy plover is distinguished from other plovers by its small size, pale brown upper parts, dark patches on either side of the upper breast, and dark gray to blackish legs. Snowy plovers weigh between 1.2 and 2 ounces and are generally 5 to 7 inches long. The Pacific coast population of the western snowy plover breeds primarily on coastal beaches from southern Washington to southern Baja California, Mexico. Historic records indicate that western snowy plovers nested at 29 locations on the Oregon coast. Currently, only eight locations in Oregon support nesting western snowy plovers. The decline of the species has been attributed to loss of nesting habitat, human disturbance, encroachment of European beach grass on nesting grounds, and predation (U.S. Fish and Wildlife Service, 2006).

In the eight areas of the Oregon coast that are currently used for nesting by the snowy plover, seasonal restrictions on beach use are implemented in an effort to reduce disturbance to breeding plovers (U.S. Fish and Wildlife Service, 2006). Activities that may adversely affect plovers include dune stabilization using vegetation or fencing, construction of breakwaters and jetties, sand deposition, and driving off-road vehicles near nesting areas.

There is potentially suitable habitat for western snowy plover on the upland beach area of Port Orford. However, this is outside the limits of the project area and will not be affected by dredging or disposal activities.

3.3.3 Aquatic Species

Benthic invertebrates play an important role in secondary productivity of near-shore marine systems. They are a direct source of food for many demersal fishes and also have

an active role in the shredding and breakdown of organic material and in sediment reworking (Environmental Assessment, 1991).

Benthic organisms and bottom dwelling invertebrates may be temporarily disturbed, but no lasting impact will occur to the overall population as a result of the proposed action.

Demersal species present in the inshore area are mostly residents (not migratory), and include a number of species of flatfish, sculpins, sea perch, and rocky reef fish that are associated with the neritic reefs and the jetties. Dominant species include English sole, sanddab, and starry flounder (Environmental Assessment, 1991). Essential fish habitat is present in the project area for species such as black rockfish, black and yellow rockfish, chilipepper, kelp geenling, grass rockfish, cabezon, gopher rockfish, leopard shark, blue rockfish, copper rockfish, bocaccio, lingcod, yellowtail rockfish, spotted ratfish, tiger rockfish, rosy rockfish, widow rockfish, stripetail rockfish, vermilion rockfish, squarespot rockfish, canary rockfish, bank rockfish, yelloweye rockfish, sharpchin rockfish, shortraker rockfish, flag rockfish, and cowcod. These species prefer hard bottom ocean subsurfaces and rocky intertidal habitat that is found in the Port Orford area.

A number of migratory fish species may also occur in the project area. Species present include smelt, herring, anchovies and a variety of other pelagic species. Coho and chinook salmon adults and juveniles may occur infrequently in the area because there are no drainages into Port Orford.

ODFW and Oregon State University conducted SCUBA and manned submersible surveys at Orford Reef between 1990 and 1993. These surveys have documented very diverse and abundant invertebrate and fish communities throughout Orford Reef. Orford Reef is an extensive system of subtidal and emergent rocks four miles southwest of Cape Blanco that forms a major geographic feature along Oregon's near shore continental shelf. The reef covers at least 25 square miles, of which only 3.5 square miles is visible on the surface as clusters of rocks or subtidal kelp beds. Extensive areas of reef support dense beds of kelp (Fox et al, 1994).

3.3.3.1 Federally Listed Aquatic Species

Coho Salmon

This proposed action of the Corps' maintenance activities occurs within the range of coho salmon (*Oncorhynchus kisutch*), which is listed as a threatened species under the Endangered Species Act (ESA). An Evolutionarily Significant Unit (ESU) of coho salmon, the Southern Oregon/Northern California Coast ESU (SONCC) occurs in the Port Orford area, (Draft Biological Assessment, 2005).

Coho salmon are distributed throughout the Pacific Ocean north of central California. This anadromous salmonid exhibits a relatively short 3-year life cycle. Adults typically enter freshwater in late summer through fall, spawn by mid-winter, and die thereafter. Variation is exhibited between and within populations of coho salmon. Depending upon

water temperature, incubation in river gravels requires 1.5 to 4 months. Juvenile coho salmon rear in freshwater up to 15 months after emerging from the gravel. They undergo considerable instream migration during this period in the upper tributaries to find suitable winter and summer rearing habitat (Miller and Sadro 2003). After rearing, smolts outmigrate to the ocean in the spring as age 1+ juveniles.

Time frames for coho life-stage activities have not been prepared by ODFW for Port Orford. Based on ODFW professional opinion, there is no spawning or freshwater rearing of coho upstream in Port Orford, making it extremely unlikely for coho to be present in or adjacent to the dredging sites (Confer 2005). No rivers, creeks, or other waterways flow into Port Orford. The closest streams that support coho salmon populations are the Elk, Sixes, and Coquille rivers to the north and Hubbard Creek, approximately 2 miles to the south. Juvenile coho smolt in the spring and quickly make their way out of these streams to begin ocean migration. Adults return to spawn in late summer to early fall. Adult coho remain 0.5 to 10 miles off the coast of Port Orford during this time. The Port Orford area is not specifically identified in designated critical habitat for SONCC coho (64 FR 24049).

Loggerhead, green, leatherback, and Pacific ridley sea turtles

The loggerhead sea turtle (*Caretta caretta)* (threatened), the green sea turtle (*Chelonia mydas)* (threatened), the leatherback sea turtle *(Dermochelys coriacea)* (endangered), and the Pacific ridley sea turtle (*Lepidochelys olivacea)* (threatened) have all been recorded from strandings along the Oregon and Washington coastline since 1982 (Green et al. 1992). Leatherback, loggerhead, green and Pacific ridley sea turtle occurrences off the Oregon Coast are associated with the appearance of albacore. Albacore occurrence is strongly associated with the warm waters of the Japanese Current that tends to approach the Oregon Coast in late summer. During El Niño events, warm water may occur closer to the Oregon coast than usual, but typically warm water associated with the Japanese Current does not closely approach the Oregon Coast, generally occurring 30-60+ miles offshore. These marine turtles can occur, but do not typically occur close to shore and would only occur in the vicinity of the proposed project site under unusual circumstances (Biological Assessment, 2004).

Right, Sei, blue, finback, humpback, and sperm whales

The right whale (*Balaena glacialis*), Sei whale (*Balaenoptera borealis),* blue whale (*Balaenopter musculus),* finback whale (*Balaenoptera physalus),* humpback whale (*Megaptera novaeangliae),* and sperm whale (*Physeter macrocephalus)* are all listed as endangered and all occur as migrants in waters off the Oregon Coast.

These species may occur in the project area, but information on numbers, distribution and feeding habits is sparse. According to Maser et al. (1981), occurrence of blue whales off the Oregon Coast is primarily in May and June and August through October. Blue whales typically occur offshore as individuals or in small groups and winter well south of Oregon. Finback whales also winter far south of Oregon and range off the Oregon Coast during summer. Whaling records indicate that finback whales were primarily harvested

off Oregon from May to September. Sei whales also winter south of Oregon. Based upon information from central California, Sei whales probably occur in southward migration off the Oregon Coast in late summer and early fall. Sperm whales occur as migrants and some may summer off the Oregon Coast. Sperm whales forage in waters much deeper than those in the vicinity of the proposed project. Strandings have occurred along the Oregon Coast. Humpback whales primarily occur of the Oregon Coast between April and October with peak numbers occurring during June, July and August. Green et al. (1992) observed 35 humpback whales near Heceta Bank in June 1990. They noted that humpback whales were particularly concentrated in Oregon along the southern edge of Heceta Bank and found this species primarily on the continental shelf and slope. Right whales may occur off the Oregon Coast during winter and summer distribution is in cool waters north of 50 degrees north latitude.

Stellar sea lion

The Stellar sea lion (*Eumetopias jubatus)* (threatened) breeds along the west coast of north America from California's Channel, to the Kurile Islands and the Okshotok Sea in the western north Pacific Ocean and are year long residents along the Oregon coast. They occur as migrants in the vicinity of the proposed project area.

Stellar sea lions are known to haul out at ten sites along the Oregon coast. These sites from north to south are as follows:

1. Columbia River South Jetty (Clatsop County)
2. Ecola State Park (Clatsop County)
3. Three Arch Rocks (Tillamook County)
4. Cascade Head (Tillamook County)
5. Seal Rock (Lincoln County)
6. Sea Lion Caves (Lane County)
7. Cape Arago (Coos County)
8. Blanco Reef (Curry County; located approximately 6 miles north of Port Orford and the nearest potential disposal activity)
9. Orford Reef (Curry County; located approximately 4.5 miles northwest of Port Orford and the nearest potential disposal activity)
10. Rogue Reef(Curry County; located 2 miles northwest of the Rogue River entrance and 2.5 miles northwest of the nearest potential disposal activity)

Of these haul out sites, Rogue and Orford Reefs are rookeries. The Orford Reef is approximately 4.5 miles northwest, offshore of Port Orford. Peak attendance at the two Oregon rookeries occurs during May, June and July. Sea Lions begin to leave the rookeries in August. Males are first to leave, followed by females within a few months (Gentry and Withrow, 1978). Seasonal shifts in the use of haul out sites are common among Stellar sea lions. Stellar sea lion numbers appear to be lower off Oregon in the winter than summer, though it is not known where these animals may be migrating to or wintering.

Stellar sea lions forage at river mouths and near shore areas along the coast. Proximity to the mouth of a river is the most important factor in determination of foraging areas (Biological Assessment, 2004). The rookery and haul-out areas are not in close proximity to proposed dredging and disposal operations. It is unlikely that northern sea lions would be impacted as disposal operations are intermittent in nature and confined to a limited area. It is anticipated that Stellar sea lions would avoid the immediate areas of dredging and disposal.

3.4 CULTURAL SETTING

3.4.1 History

Port Orford, in Curry County, was the first permanent community along the Southern Oregon Coast. It was settled in 1851 by Captain William Tichenor, who attempted to develop it into a major mineral shipping port. After a few years this was unsuccessful and fish harvesting and processing became county's major industry. Agriculture later developed in response to population growth throughout the county. The lumber industry became important to the area in the early 1900s and is still one of the largest industries in the area (Environmental Impact Statement, 1975).

Port Orford, was named in honor of George Vancouver's "much respected friend" George, Earl of Orford (1730-1791), in the year 1850. After the original mineral rush in the south coast area, the town became dependent upon the lumber industry. In the fall of 1868, a forest fire severely damaged Port Orford. Remaining residents rebuilt the town because they were convinced that the open harbor and fishing, lumbering and mining would bring prosperity to the area. Port Orford was actually the first Curry County seat and was incorporated in the year 1936. Throughout the latter half of the 20 century, the town's economy primarily depended upon fish harvesting and processing (Environmental Impact Statement, 1975).

No resources eligible for listing in the National Register of Historic Places (NRHP) were identified. To meet the requirements of Section 106 under the National Historic Preservation Act, the Oregon State Historic Preservation Office (SHPO) was consulted. SHPO responded in a letter dated January 21, 1988 that the project area is not of historic significance and it is unlikely the project will impact any archaeological resources. SHPO concurred with the finding of no effect. Should future reviews indicate evidence of significant archaeological or historic resources, additional appropriate action will be taken.

3.4.2 Tribal Concerns

Affirmed in treaties, Supreme Court decisions, and executive orders, the Corps has a government-to-government relationship with Indian Tribal Governments and requires the Corps and other Federal agencies consult with Tribes regarding policy and regulatory matters. Federal law requires that any anticipated impacts to Indian trust resources from

a proposed project or action by Corps be explicitly addressed in environmental documents. The federal Indian trust responsibility is a legally enforceable fiduciary obligation on the part of the United Sates to protect tribal lands, assets, resources, and treaty rights, and it represents a duty to carry out the mandates of federal law with respect to American Indian and Alaska Native tribes. No sacred sites have been identified in the project area or will be impacted by the alternatives (Final Public Notice, 2004).

3.4.3 Social

According to the 2000 census data, the City of Port Orford's year 2000 population is 1,153, while the surrounding area adds another 3,500+- to the population total. Curry County's year 2000 population is 21,137 (1990 - 22,050) (1970 - 13,006). Curry County includes 1,648 square miles of coastal landscape in Oregon. Estimated population is 13 people per square mile. As of 2000, there were 662 available housing units in the City of Port Orford, with a total of 11,406 in the county (Port Orford, 2006).

Title VI of the Civil Rights Act of 1964, as amended, is a national law that protects persons from discrimination based on their race, color, or national origin, sex, age and handicap/disability in programs and activities that receive Federal financial assistance. It authorizes and directs the appropriate Federal departments and agencies to take action to carry out this policy.

To comply with Title IV and Executive Order 12898, Environmental Justice, it is necessary to identify existing disadvantaged populations that have potential to be affected by the alternative selected. According to the Executive Order 12898, minority and low income populations should not bear a disproportionately high and adverse human health or environmental effect as a result of the proposed project.

Many of the statistics used in this section are obtained from the 2000 Census, as it is the most recent and readily available source for population and income characterized by race and gender (U.S. Census, 2006). While Census data are valuable because they are one of the few sources for this type of information, the data were gathered at a single moment in time. The information from this "snapshot" of the population, therefore, should not be interpreted as annual averages.

Curry county is 92.9% white, 0.3% black, 4.1% native American, 0.9% Asian and 3.6% Hispanic. Statistics indicate that 7.9 percent of families in Curry County are in poverty; statewide, this figure is 9.7 percent. The rate for individuals in poverty is similar: 12.2 percent for Curry County versus 11.6 percent for the state as a whole. For individuals over 65, the poverty rate is 10.6 percent, and the state rate of 7.6 percent. Individuals over 65 comprise 26.6 percent of the of Curry County's population (U.S. Census, 2006). There are no disadvantaged or impoverished populations in the area, though it is possible a few residents may qualify.

3.4.4 Economics

Port Orford possesses a unique, natural open water port, home to a fishing fleet launched by crane from a rolling dry berth for each fishing expedition. Major industries include ranching, cranberry farming, forestry, retail sales, tourism and fishing, both sport and commercial. In the commercial fishing industry crab, tuna, halibut, salmon, black cod and Sea Urchins are among the species harvested. Sea urchins are processed for sale to the Japanese market (Coast and Harbor Engineering, 2006).

3.4.5 Land and Water Use

Comprehensive plans consider the physical characteristics, historical background, population characteristics, economic factors, population forecasts, and land use development patterns in developing land use classifications. The Port Orford site is under city jurisdiction. Lands adjacent to the proposed dredging activity are generally zoned for commercial and industrial uses (Environmental Impact Statement, 1975).

There is limited land and water use in the vicinity of the project area. Crabbing, clam digging, bottom fishing and recreation are all popular water use activities within the harbor. Land use activities consist of boat storage, maintenance and repair on the port pier, and beach recreation along the shoreline of the harbor. Battle Rock State Park is located at the eastern limit of the harbor beach. The only other use of land in the project area is for an access roadway and parking lot areas.

The project area is located adjacent to a Marine Activity (MA) zone. The purpose of this zone is to provide areas suitable for uses which depend on or are benefited by a waterfront location and to reserve such areas for these uses (Coastal Zone Management Act Consistency Determination, 1997). Periodic maintenance dredging would allow continued use of the existing dock facilities and would not interfere with other permitted uses within the MA zone. This action is consistent with City of Port Orford comprehensive plan (Coastal Zone Management Act Consistency Determination, 1997).

Chapter 4 Environmental Consequences

4.1 GENERAL

Environmental impacts would include disruption and removal of ocean bottom habitat and organisms; resuspension of bottom materials causing temporary increases in turbidity during dredging; and smothering of aquatic and terrestrial habitats and organisms during disposal (Environmental Impact Statement, 1975).

Most disposal will occur in the near-shore placement area. This will result in the burying of benthic organisms at the disposal site. Disposal will also result in an increase in suspended solids in the vicinity of the disposal sites. This impact should be localized and of short duration because the majority of the dredged material is sand and gravel, which does not stay suspended in the water column for any length of time.

The disposal at the breakwater placement area will also cause localized impact to benthic organisms. Dredged material would be discharged off the breakwater, as close to the outer end as possible, to avoid the natural rocky intertidal habitat at the shoreward end of the breakwater (Public Notice, 2002). The material will be discharged directly into the water, avoiding dispersal onto rocks and rocky surfaces. BMPs will minimize risks of material being in contact with rocks.

4.2 HABITAT

The terrestrial vegetative communities within the vicinity of the project area will not be affected by the proposed action. Aquatic habitats will be affected only in the immediate area of the proposed action. No adverse impacts to nearby kelp habitats are expected. Dredging and disposal will occur in open sand habitat. Though this habitat will be impacted by dredging and disposal, the impact is expected to be localized. The area will recover quickly because the dredge material is the same as the existing bottom material. Although some settling out of the sediment from disposal may occur in other areas, the deposition is likely to be small and have a minimal effect on the value of this habitat.

Dredging of Port Orford will have minimal impacts on EFH. Most of these areas are dredged and disposed on a regular basis and do not provide valuable EFH. The near-shore placement area was inspected by Oregon Department of Fish and Wildlife, at the request of Port of Port Orford, and their report indicated a relatively flat sand bottom with few aquatic organisms observed (Public Notice, 2002). Consequently, the impact is expected to be short-term and localized.

Marine mammals, fish, and local waterfowl would avoid the area during the dredging operation, and most likely would not be affected.

4.3 CONTAMINANTS

The exposure media for aquatic organisms to contaminants include sediments, suspended sediments, and water, while the major exposure pathways include ingestion, direct contact, and bioconcentration. Primary receptors have been identified as benthic organisms, forage fish, and zooplankton, which are then ingested by pelagic fish. Exposure of the benthic prey base to contaminants has two potential routes of impact to fish. Fish may be exposed to contaminants by consumption of invertebrates that have accumulated the contaminants from the sediment (Draft Biological Assessment, 2005). The second route of impact may occur if exposure to contaminants is high enough to affect the abundance and growth of epifauna, thereby impacting the availability of food. In order for adverse effects to occur, the actual dredging operations must influence these exposure routes. Sediment testing at Port Orford shows that most of the sediments meet screening requirements and will not expose organisms to contaminants (Draft Biological Assessment, 2005).

4.4 THREATENED AND ENDANGERED SPECIES

It is not likely that marbled murrelet, brown pelican, western snowy plovers, loggerhead turtle, green turtle, leatherback turtle, Pacific ridley sea turtle, Right whale, Sei whale, blue whale, finback whale, humpback whale, sperm whales, and Stellar sea lion will be found in the project area. Minimal effects to the habitats of the federally listed species are expected.

The proposed project will not affect pink sand verbena.

The presence of dredge vessels may cause temporary minor disturbance to murrelets (if they are present) on open water. The project would not impact resources that are limiting factors to murrelet populations and dredged material will be suitable for in-water disposal and will not result in contamination of fish.

Brown pelicans may be in the vicinity of the project during dredging operations. The proposed project may cause minor temporary disturbances to brown pelican foraging activity. The dredged material will be suitable for in-water disposal and will not result in contamination of fish.

There is no evidence of bald eagle nesting near Port Orford (Issacs and Anthony, 2005). The presence of a dredging vessel is not expected to significantly alter foraging patterns of eagles, but may cause minor disturbance to flight paths. Dredged material will be suitable for in-water disposal and will not result in contamination of fish.

The project area is not used for nesting or foraging by the western snowy plover. The proposed action will not impact western snowy plover.

These marine turtles can occur, but do not typically occur close to shore and would only occur in the vicinity of the proposed project site under unusual circumstances, the proposed action is not likely to impact the four species of sea turtles.

These whales generally occur farther from shore and would only occur in the vicinity of the proposed project site as immigrants and because it is anticipated that whales would avoid immediate areas of disposal, the proposed action is not likely to impact the right, Sei, blue, finback, humpback or sperm whales.

Stellar sea lions forage at river mouths and near shore areas along the coast. Proximity to the mouth of a river is the most important factor in determination of foraging areas. The rookery and haul-out areas are not in close proximity to proposed dredging and disposal operations. It is unlikely that northern sea lions would be impacted as disposal operations are intermittent in nature and confined to a limited area. It is anticipated that Stellar sea lions would avoid the immediate areas of dredging and disposal. As a result, the proposed action is not likely to impact Stellar sea lions**.**

The effects to listed SONCC coho salmon stocks from maintenance dredging and material disposal could include entrainment, harassment, and contaminants. These effects are summarized below.

Entrainment
A slight risk to SONCC coho being entrained by hydraulic dredges would occur when the cutterhead of the pipeline dredge is off the bottom. Although this risk is expected to be small, best management practices are implemented to reduce the amount of time and distance the cutterhead is off the bottom. Mechanical dredging (clamshell) has a lower entrainment rate than hydraulic dredging because underwater velocities and wave front created in the path of this type of dredge preclude entrainment by the bucket.

Harassment
Vibration, noise, and turbidity from dredging operations may displace or otherwise harass or stress both adult and juvenile SONCC coho. The area of disturbance around the dredge is very small relative to the project area, and the impact to salmonids is expected to be minimal since most fish are able to avoid the impact area around the dredge. In addition, the disturbance is not constant. Pipeline and clamshell dredges stop dredging when they move to a new location (Draft Biological Assessment, 2005).

Temporary increases in turbidity will occur from dredging, but will be limited to the active dredging area and in the subsequent plume that develops. For this project, the material is composed primarily of gravel and sand (<2% fines) and is expected to have a small plume with less duration than material containing a higher percentage of fines such as is found in some of the coastal boat basins and upriver channels (Draft Biological Assessment, 2005). Displacement of adult and juvenile coho salmon may result from the increased turbidity because they will move to avoid areas of high concentrations of

suspended sediment. The extent of this potential impact cannot be quantified but should be limited to the size and duration of the plume (Draft Biological Assessment, 2005).

Contaminants
There is not expected to be any contaminant exposure to coho for the proposed action.

The proposed action is not likely to impact coho salmon. The maintenance activities would not result in loss or adverse modification of designated or proposed critical habitat or primary constituent elements.

Impacts to federally-listed threatened and endangered species are expected to be small for this project and will not be substantially increased when considering the overall impacts from the other projects occurring on the South Oregon Coast.

4.5 CULTURAL AND HISTORIC RESOURCES

No resources eligible for listing in the NRHP were identified. The proposed action will not affect any cultural or historic resources.

4.6 SOCIAL, ECONOMIC AND LAND USES

The proposed action will not have an adverse effect on the local population. It will not change any of the current land and sea uses. When completed, the project should have a substantial positive effect upon the local economy.

The purpose of the proposed action is to maintain sufficient water depth below the boat hoist at the Port Orford dock to allow removal of boats and their catch from the water to the safety of the dock. Currently, winds and waves out of the south bring an abundance of sand up to the side of the dock at the Port of Port Orford, the access point where cranes haul the boats in and out of the ocean (Rice, 2006). Boats can only get in and out of port at high tide. This causes economic hardship for many in the local fishing industry. The accumulated sediment causes a reduction in the amount of time each day that catch can be harvested. At this point in the season, the entire fleet staying home for just one day represents about a $50,000 loss to the Port Orford economy, where about 120 fishing and port-related jobs are responsible for about 25 percent of local economic activity, according to Gary Anderson, the Port manager of the port (Rice, 2006). The recent sand accumulation has cut the crab harvest in half.

The proposed action is expected to have a positive effect on the local fishing industry and economies of Port Orford and Curry County.

4.7 AIR QUALITY

The dredging included in the proposed action should not have an adverse effect to air quality.

4.8 CUMULATIVE EFFECTS

Cumulative effects are defined as, "… those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action" (50 CFR §402.02). To determine whether there are future activities reasonably certain to occur within the Port Orford action area, local officials were queried. No non-federal actions that would affect the project area or threatened and endangered species habitat were identified.

The Corps routinely dredges several projects on the Oregon Coast (Coastal Projects) to maintain their federally authorized navigation channels. Other project sites include Tillamook Bay, Depoe Bay, Yaquina Bay and River, Siuslaw River, Umpqua River, Coos Bay, Coquille River, Rogue River, and the Chetco River. No cumulative effects are expected from these projects because of their substantial distance from the Port Orford project area.

4.9 SUMMARY OF MITIGATION MEASURES

Conservation Measures
The following overall impact minimization practices and BMPs will be used for maintenance dredging.

1. To minimize the potential for entrainment of organisms, the dragheads and cutterheads will remain on the bottom to the greatest extent possible and only be raised 3 feet off the bottom when necessary for dredge operations.
2. If the Captain or crew operating the dredges observes any kind of sheen or other indication of contaminants, he/she will immediately stop dredging and notify the Corps' environmental staff to determine appropriate action.

Mitigation for dredging and disposal impacts is provided by the following measures that were incorporated into the maintenance actions to reduce impacts.

Dredging
1. Dredging will be done only in channel areas that are dredged on a regular basis and generally have a lower biological productivity than undisturbed areas.
2. Dredging will be done principally with hydraulic dredges to reduce turbidity levels in the water column.
3. Cutterheads will be kept at a maximum of 3 feet above the bottom while being operated. This is done to reduce entrainment impacts to pelagic fish.

Disposal
1. Sediments have been tested and determined to be suitable for unconfined, in-water disposal. If in the event that testing shows the material is not suitable for unconfined, in-water disposal, the material will be placed at an acceptable upland disposal site.

2. Near-shore and breakwater disposal sites are located, to the extent possible, in areas of low biological productivity.
3. Near-shore and breakwater disposal sites are located, to the extent possible, in areas that avoid impacts to commercial fishing operations.
4. Near-shore and breakwater disposal site bathymetry is monitored on a regular basis to ensure that mounding is not occurring and creating a navigation hazard.
5. Some disposal sites have a buffer zone in order to ensure that disposal will not impact areas outside of the disposal site.

Chapter 5 Agency Coordination

5.1 COORDINATION AND CONSULTATION

5.1.1 Compliance with Applicable Laws and Regulations

Clean Water Act

A Section 404 (b)(1) Evaluation has been updated to address the proposed discharge of dredged material into a water of the United States and will be available for review at the Portland District. Previous evaluations were completed in 1984, 1990, 1991, and 2002. State Water Quality certification, as required under Section 401 of the Act, was obtained July 29, 2004 (Final Public Notice, 2004).

Coastal Zone Management Act

The Coastal Zone Management Act (CZMA) strives to preserve and protect coastal resources. Through the CZMA, states are encouraged to develop coastal zone management programs (CZMPs) to allow economic growth that is compatible with the protection of natural resources, the reduction of coastal hazards, the improvement of water quality, and sensible coastal development. State coastal zones include the coastal waters and adjacent shorelands that extend inland to the extent necessary to control activities that have a direct, significant impact on coastal waters. Federal license or permit activities that affect any land or water use or natural resource of the coastal zone must be fully consistent with the enforceable policies of the CZMP. The entire project area is in the coastal zone (Final Public Notice, 2004).

A consistency determination has been prepared and provided to the Oregon Department of Land Conservation and Development for concurrence (Final Public Notice, 2004). The Oregon Department of Land Conservation and Development responded with a letter of concurrence in 2004.

Endangered Species Act

In compliance with this Act, the proposed action has been coordinated with the USFWS and National Oceanic Atmospheric Administration, National Marine Fisheries (NMFS).

A biological assessment (BA) was prepared and submitted to the USFWS for informal consultation under Section 7 of the ESA for the species under their jurisdiction. A BA will be submitted to NMFS for species under their jurisdiction. The purpose of the BA is to review the proposed alternative in sufficient detail to determine whether the proposed actions may affect any of the threatened, endangered, or proposed, in the project area. The BA was prepared in accordance with legal requirements of the ESA (16 U.S.C. 1531 *et seq.*) and follow the standards established by the Corps.

A determination was made that the proposed action would have no effect on bald eagle. The proposed action may affect, but is not likely to adversely affect marbled murrelet, brown pelican, western snowy plovers, loggerhead turtle, green turtle, leatherback turtle, Pacific ridley sea turtle, Right whale, Sei whale, blue whale, finback whale, humpback

whale, sperm whales, and Stellar sea lion. A preliminary determination was has been made that the proposed action is not likely to adversely effect listed coho salmon.

Fish and Wildlife Coordination Act
In compliance with this Act, the proposed action has been coordinated with the US Fish and Wildlife Service, the National Marine Fisheries Service (NOAA), and the Oregon Department of Fish and Wildlife. The Agency has submitted a biological assessment for formal consultation with USFWS concerning wildlife species. A biological assessment for ESA listed fish species with NOAA has also been submitted.

Marine Protection, Research and Sanctuaries Act
All ocean dredged material disposal sites (ODMDS) are evaluated and selected under the criteria established pursuant to Sections 102 and 103 of this act. Port Orford has no ODMDS, so this regulation is not applicable.

National Historic Preservation Act
There is no known site of historical or archeological significance in or close to the project area (Final Public Notice, 2004). It is unlikely that any archaeological resources would be affected by the proposed activity. An inspection of the site prior to disposal will be conducted to confirm this. The Oregon State Preservation Officer will be consulted and concurrence in this determination will be requested.

Executive Order 11988, Floodplain Management
The proposed project would not encourage development in or alter any floodplain areas.

Executive Order 11990, Protection of Wetlands
No wetlands will be affected by this project.

CEQ Memorandum, Analysis of Prime and Unique Farmlands
No prime or unique farmlands exist within the project area.

Executive Order 12898, Environmental Justice
No disadvantaged or impoverished populations were identified in the project area.

5.1.2 Coordination with other Agencies

5.1.2.1 Project Sponsors

The local sponsor for proposed action is the Port of Port Orford. A local sponsor is responsible for obtaining Federally required lands, easements and rights-of-way for disposal areas and for diking upland sites, when necessary.

5.1.2.2 Agency Coordination

The proposed work will be coordinated with the following Federal, State and local agencies:

Federal
US Environmental Protection Agency
US Fish and Wildlife Service
NOAA Fisheries

State of Oregon
Oregon Department of Fish and Wildlife
Oregon Department of State Lands
Oregon Department of Environmental Quality
Oregon Department of Land Conservation and Development
Oregon State Historic Preservation Office

Tribes
Confederated Tribes of the Warm Springs Reservation of Oregon
Confederated Tribes and Bands of the Yakama Nation
Confederated Tribes of the Umatilla Indian Reservation
Confederated Tribes of Grand Ronde
Confederated Tribes of Siletz
Coquille Indian Tribe
Confederated Tribes of the Coos, Lower Umpqua, and Siuslaw Indians
Cow Creek Band of the Umpqua
Burns Paiute Tribe
Cowlitz Indian Tribe
Klamath Indian Tribes
Nez Perce Indian Tribe
Fort Bidwell Indian Community
Fort McDermitt Indian Community
Colville Confederated Tribes

5.1.3 Public Involvement

Public Interest Review
The decision whether to perform the work will be based on an evaluation of the probable impact of the described activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit that reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments (Final Public Notice, 2004).

Any person who has an interest that may be affected by the disposal of this dredged material may request a public hearing. All comments received regarding the project will be responded to and included in the administrative record.

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Appendix